

moved daily, to afford an opportunity for washing away the discharge, which was abundant. The setons were then withdrawn by degrees, a few threads being pulled out at each dressing, so that by the 6th of February all had been removed. The limb was now found to have acquired considerable firmness. The woman could raise and move it without the same yielding at the broken part as formerly. However, as it was very tender, no attempts were made to ascertain the exact amount of solidity which it had gained. The tumefaction was at this period limited to the immediate neighbourhood of the fractures, where there was a palpable enlargement of the bones.

On the 11th of February, at which date the seton holes had completely healed, the arm was put up, immovably, in the following manner. A dry roller was applied round the arm, from the thumb upwards, equally and with moderate tightness. A layer of starch was rubbed well on the outside of this. Then the roller was carried down again, and again smeared with starch. Two pieces of pasteboard, cut to the shape of the forearm, were now laid on, one before, the other behind, and fixed in their places by several additional layers of the roller, laid on and starched as the first had been. The pressure exerted was barely such that while the bones were steadied properly, the muscles were allowed sufficient play to permit them to move the fingers a little. This dressing, by the next day, had become as firm as a board: and the only unusual sensation the patient experienced from it was a continual glow of warmth in the limb to the extent embraced by the bandage. During the entire period that this woman was under treatment, with the exception of the first week, when there was considerable local inflammation and general febrile disturbance, she was kept on full diet, and allowed a little wine or porter every day. She had also directions to remain out of doors, as much as the weather would permit, walking in the garden of the hospital.

On the 7th of March, four weeks from the application of the fixed bandage, the arm was again unrolled, when it was ascertained that the desired union had been established, that the patient could flex and extend the arm, and perform the motions of pronation and supination with facility, and that attempts to bend the bones at the broken parts, although productive of pain, made no impression on their form. The arm was now left unbandaged, and treated simply by bathing, hand-rubbing, and passive motion; and every day it gained in strength and fulness. On the 12th of March, the starch bandage was again applied preparatory to the woman undertaking a journey home, into the country; and on the 13th she was discharged, with directions to keep the dressings on for a few weeks longer, to permit the tenderness to subside, and to give full security against the occurrence of any morbid degeneration of the callus.

On the 10th of April, Dr. Houston received a letter from Dr. Fleming, informing him that "the union was quite perfect, and that the woman was daily acquiring a better use of the muscles of the arm."

Dr. Houston said that he thought this case calculated to encourage the practice of treating such lesions by seton—or, at least, of making the attempt before proceeding to the more severe alternative of extirpating the ends of the bones—an operation which is not only tedious and painful in the extreme, but also fraught with danger to the life of the individual.—*Dublin Med. Press*, May 1, 1844.

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33. *Aneurism of the External Iliac Artery—Ligature of the Common Iliac.* By RICHARD HEY, Esq., of York.—The subject of this case was a man 41 years of age, who, on the 10th of November, 1843, perceived a stiffness and uneasiness in his left groin, and on examination found a small hard tumour immediately above Poupart's ligament, midway between the anterior superior spinous process of the ilium and the tuber of the pubis. Having been occasionally subject to scrofulous tumours, ending in suppuration, he supposed this to be an enlarged gland, and therefore at first took but little notice of it; he showed it, however, to his medical attendant, who prescribed suitable remedies for its removal. On the 13th he was suddenly attacked with severe pain in the tumour, and on the

following morning it was found to be much increased in size; and now, for the first time, a decided pulsation was observed in it; pulse 90. From this time until the 22d, the tumour made perceptible advances in size daily, accompanied with pain along the course of the anterior crural nerve.

November 22. The tumour is now the size of a pretty large orange; the impulse very strong. It was, however, easily emptied by moderate and continued pressure, instantly filling again when the pressure was removed. Pressure on the aorta had the same effect, but in a lesser degree. When the base was grasped, the fingers at every pulsation were forcibly separated, and equally so on every side. There was clearly aneurism of the external iliac artery.

November 28. The tumour rapidly increasing in size, and as there seemed to be no alternative but placing a ligature upon the common iliac artery or speedy death, Mr. Hey proposed the operation, but the patient would not then consent.

November 30. The tumour now, from having a round and uniform surface, has become conical like the pointing of an abscess, the skin also thinner, red, and shining.

December 2. The tumour has so much increased within the last forty-eight hours as to render any farther delay hazardous. Mr. William Hey, of Leeds, saw the patient in consultation, and concurred in the propriety of placing a ligature on the common iliac artery. "It seemed out of the question to attempt tying the external iliac, because from the very large size and extent of the sac, it was evident that there would not be room for a ligature between that and the bifurcation of the external and internal iliaes; and in addition to this, the probable state of that artery made it unwise to run such a risk, even if it had been practicable.

"December 3. The tumour now occupied the whole of the left iliac fossa, its base projecting considerably below Poupart's ligament inferiorly, and superiorly extending to within less than an inch and a half from the navel, being six inches across from above to below, and six inches and a half from side to side; projecting also from the plane of the abdomen fully three inches.

"The patient was placed on his back on a mattress, his shoulders moderately raised. The incision was commenced two inches and three-quarters above the navel, and exactly three inches to the left of the median line. This was carried down moderately curved to the base of the tumour about six inches, and was afterwards enlarged by an angular continuation, one inch and a half in length. The fibres of the external and internal oblique muscles and transversalis being successively divided, the transversalis fascia was readily raised by means of a director, and carefully opened out through the whole length of the incision. The peritoneum now protruded in some measure; it was, however, kept down without much difficulty; and being gently drawn towards the opposite side, I was enabled slowly to insinuate my fingers behind the peritoneum, gradually separating it from its cellular attachment to the parts beneath. The common iliac artery was easily reached, and upon compressing it with the fingers, the pulsation in the tumour ceased at once. A little time was occupied in scratching through the sheath of the artery with the point of the aneurism needle; this being accomplished, the needle was passed under the artery from within outwards, armed with a double ligature of staymaker's silk, waxed. By holding aside the peritoneum and viscera, we now obtained for a moment a view of the artery, and ascertained that nothing else was included in the ligature; this being tied with the fingers close down upon the artery, all pulsation in the sac entirely ceased, and never afterwards returned in the slightest degree. The exact position of the ligature was, I believe, an inch below the bifurcation of the common iliaes. The wound was closed with six sutures and strips of adhesive plaster; and over the whole a coating of lint dipped in strong mucilage. Time, 25 minutes. The patient was now a good deal exhausted, although so little blood had been lost that it had not been necessary to take up a single bleeding vessel; he vomited also some brandy and water which had been given to him during the operation. He took, however, a cup of boiled milk, which was retained.

"Evening.—Patient had been very restless and uneasy after the operation for

some hours. A camphor draught, with 25 drops of Battley's sedative, had had the effect of composing him. There was now moderate reaction, pulse 90. The wound continued still very uneasy.

"Monday, December 4, half-past 9 A. M. Has passed a tolerable night, having had sleep at intervals without any further opiate. Pulse 95, rather irritable; bowels not moved, but distended with flatus; hiccup; no pain. Two grains and a half of calomel, and a quarter of a grain of opium, to be taken immediately, and in two hours time half an ounce of castor oil in peppermint water. Farinaceous diet.

"Half-past 7 P. M. Patient looking very ill; countenance anxious and sunken. No action of the bowels; a second dose of the oil had been rejected; hiccup increased; body very tympanitic and uneasy. The bandage round the body was slackened, with some relief. Great thirst, and difficulty in making water. Pulse 98. An enema consisting of gruel, with two scruples of gum assaefetida, immediately; small doses of liquor ammoniæ acetatis, occasionally.

"Tuesday, December 5, 10 A. M. Had intervals of light but refreshing sleep during the night. Enema had produced one good evacuation with much relief. No tenderness on pressing the abdomen; pulse 98. Patient upon the whole in a satisfactory state.

"*Vespere*. Not quite so well; rather more feverish; pulse had risen during the day to 104, now 100, and not so soft; tongue dry. No evacuation from the bowels; urine high coloured. Restless. Calomel, one grain; compound ipecacuanha powder, two grains. To be taken every three hours, with an effervescing saline draught. A common enema in the morning.

"Wednesday, December 6, half-past 9, A. M. Had passed a tranquil night; refreshing sleep. Enema had acted well; body soft and flaccid; pulse 89, soft. Dressed the wound, which showed a great disposition to heal; discharge very moderate. Omit the calomel; continue the saline draughts and farinaceous diet.

"December 7. Nothing material; all going on well; pulse 80. Bowels moved three or four times yesterday. Patient allowed some beef-tea and arrow-root, mixed. During the last day or two the tumour had looked very threatening and ready to suppurate.

"December 8. Dressed the wound, which upon the whole was going on well. Body distended; but little pain. On this day the tumour seemed to be slightly diminished in size; the skin a little paler and shrunk.

"December 9. Going on well in every respect. Hard lumps discharged from the bowels; appetite good. Ordered a mutton-chop and half an ounce of wine, in addition to arrow-root, with beef-tea.

"December 10. Wound looking well, though the edges not quite so united; discharge very moderate; bodily health and strength better than before the operation; enjoyed his chop and wine yesterday; pulse 80. Discovered this day, for the first time, an artery on the dorsum of the foot, pulsating, (the anterior tibial). Tumour decidedly diminished. From this time nothing particular occurred during the progress of the case. It was found necessary to give a small dose of morphia every night, without which he had little or no sleep. He also suffered much from violent spasm of the bowels, and tenesmus whenever they were moved, in consequence of which he had medicine only on alternate days. As the motions were abundant in quantity it did not seem very evident from what this distressing symptom arose; the spasm, however, could not be quieted without the aid of an opiate injection.

"December 23. Tumour has diminished more than one-half, but the ligature quite fast; appetite good.

"December 30. On removing the dressings this day the ligature seemed to be lying somewhat further out of the wound than usual, and on gently drawing it, I found it quite loose, and it came away without the slightest pain or difficulty. The length of the ligature from the knot to the surface was nearly five inches.

"January 4. I must now allude more particularly to the distressing feature

which has already been mentioned, and which threatened, if not overcome, to render our patient's life miserable, viz., the spasm of the bowels. Thinking that it might arise from some obstruction in the rectum, I had recommended Mr. Nelson to pass a bougie and explore the lower bowel: this he did, without, however, any result. In the mean time the spasm became more and more urgent whenever the bowels were moved. However copious the evacuation, he always felt as though there was something left which could not be expelled. On this day matters assumed a very serious aspect, the bowels were completely obstructed, the spasm dreadful; at length he became quite exhausted, and seemed to be falling into a state of coma, body very tympanitic. On passing the catheter to ascertain if the bladder were distended, Mr. Nelson found considerable obstruction. This led him again to examine the rectum, which he now found to be enormously distended with a hardened mass of fæces. It felt, he said, more like a child's head presenting than any thing else he could compare it to. It was thoroughly dry like bran. Here then was the cause of these formidable symptoms. It appears that the pressure of the increasing tumour had caused a gradual accumulation of fæces in the colon; and although considerable evacuations were obtained by means of aperient medicines and injections, yet there never was a complete clearance, owing to the growing pressure of the sac. As this however became gradually diminished by absorption, it permitted the fæcal matter slowly to advance, and at last completely to block up the rectum in the manner already described. That this was not discovered when Mr. Nelson first explored the rectum was no fault of his, but arose, I doubt not, from the circumstance that it had not descended within reach of an ordinary bougie.

"Mr. Nelson happily succeeded in breaking down this extraordinary accumulation, and our patient in a few hours so far revived as to relieve us from our gloomy anticipations. Nothing has since occurred to retard his complete recovery.

"It now only remains to notice one point, viz., the temperature of the limb after the operation. Perhaps this ought sooner to have been alluded to, but in truth there is little to say on this part of the case. We kept an accurate account, but after the first few days the temperature of the two limbs was so nearly equal that the difference did not amount to half a degree. The limb was simply wrapped in fine flannel. The temperature at first fell not quite so much as three degrees below that of the sound limb; in forty-eight hours it had risen two degrees *above* the opposite; this soon subsided, and in four days after the operation the two limbs were equal (89°) and continued so.

"Two or three weeks after I had taken my leave, Mr. Nelson informed me that the sinus, made by the ligature, was not healed. It appeared that the sac had ulcerated and discharged its remaining contents, grumous blood mixed with pus; by this means what remained of the tumour was entirely dispersed, and the sinus healed. We thought it advisable to apply a belt afterwards, in order to support the weakened parietes of the abdomen; and to the most prominent part, also, a kind of truss, with a four inch pad, which the patient found very comfortable.

"A remarkable feature in this case was the extreme and unusual rapidity of its progress, after its first commencement, only three weeks having elapsed from its first appearance of the size of a hazel nut, before it had attained the formidable size which has been described."—*Prov. Med. and Surg. Journ.*, May 1, 1844.

34. *Removal of a knife-blade from between the Trachea and right Carotid Artery.* By R. T. HUNT, Esq., of Manchester.—A man was wounded in the neck, whilst on the ground, by another who had knocked him down and fallen on him. The surgeon who first examined the wound could find no foreign body in it. Three weeks afterwards the patient applied to Mr. Hunt, at which period he was suffering from urgent dyspnœa, oppression and tightness of the chest, and fixed pain of the right side, extending through to the inferior angle